



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/543,223	04/05/2000	Stephen S. Jackson	2204/A35	7263
34845	7590	09/08/2006	EXAMINER	
McGUINNESS & MANARAS LLP 125 NAGOG PARK ACTON, MA 01720			PHAN, HANH	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/543,223	JACKSON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hanh Phan	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 26 June 2006.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-50 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 16/26/2006.

### ***Claim Objections***

2. Claim 47 is objected to because of the following informalities:

In claim 47, line 7, the phrase "a second transponder" should be changed to -- the second transponder--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 25-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

-Claim 25 recites the limitation "**the wireless optical form**" in line 6. There is insufficient antecedent basis for this limitation in the claim.

-Claim 32 recites the limitation "**the wireless optical form**" in lines 6 and 7.

There is insufficient antecedent basis for this limitation in the claim.

-Claim 39 recites the limitation "**the wireless optical form**" in lines 8 and 9.

There is insufficient antecedent basis for this limitation in the claim.

-Claim 40 recites the limitation "**the primary optical signal**" in lines 3 and 4.

There is insufficient antecedent basis for this limitation in the claim.

-Claim 40 recites the limitation "**the primary second data signal**" in line 5.

There is insufficient antecedent basis for this limitation in the claim.

-In claim 47, the phrase "**a single optical signal**" is undefined. How to generate the single optical signal.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 2, 5-10, 13-18, 21-24 and 47-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byers et al (US Patent No. 6,650,451) in view of Dewberry et al (US Patent No. 6,507,425).

Regarding claims 1, 9, 17 and 47, referring to Figures 1, 2A and 2B, Byers discloses a method of processing a data signal for transmission to a remote device, the method comprising:

producing a signal (i.e., Figs. 1, 2A and 2B, col. 4, lines 1-25, col. 5, lines 8-67 and col. 6, lines 1-55);

converting the signal to an outgoing signal, the outgoing signal being a wireless optical signal (i.e., col. 4, lines 1-25, col. 5, lines 8-67 and col. 6, lines 1-55);

transmitting a plurality of copies of the outgoing signal, at least two copies of the outgoing signal being transmitted in different directions, a first copy being transmitted by

a first directional transmitter and a second copy being transmitted by a second directional transmitter, the first and second transmitters having non-identical transmission directions (i.e., Figs. 1, 2A and 2B, col. 4, lines 1-25, col. 5, lines 8-67, col. 6, lines 1-55, and col. 8, lines 7-35).

Byers differs from claims 1, 9, 17 and 47 in that he does not specifically teach the signal converted to an outgoing signal is a composite signal which is produced by synchronizing a data signal with a clock signal. Dewberry, from the same field of endeavor, likewise teaches an optical wireless transceiver (Figure 3). Dewberry further teaches that the signal converted to an outgoing signal is a composite signal which is produced by synchronizing a data signal with a clock signal (i.e., Fig. 3, col. 3, lines 40-67 and col. 4, lines 1-12). Based on this teaching, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the signal converted to an outgoing signal is a composite signal which is produced by synchronizing a data signal with a clock signal as taught by Dewberry in the system of Byers. One of ordinary skill in the art would have been motivated to do this since allowing maintaining the synchronism between the transmitter and receiver during data transfer.

Regarding claims 2, 10 and 18, the combination of Byers and Dewberry teaches the outgoing signal is in the infrared spectrum (i.e., Fig. 1 of Byers and Fig. 3 of Dewberry).

Regarding claims 5, 13, 21 and 48-50, the combination of Byers and Dewberry teaches receiving an incoming signal, the incoming signal being an optical signal and

having a specified timing signal, the clock signal of the composite signal being synchronized with the specified timing signal (i.e., Fig. 1 of Dewberry).

Regarding claims 6, 14 and 22, the combination of Byers and Dewberry teaches wherein the data signal includes at least one of video data and audio data (i.e., Fig. 1 of Dewberry).

Regarding claims 7, 15 and 23, the combination of Byers and Dewberry teaches wherein the plurality of copies of the outgoing signal are transmitted through the air (i.e., Figs. 1, 2A and 2B of Byers).

Regarding claims 8, 16 and 24, the combination of Byers and Dewberry teaches where the different directions overlap (i.e., Figs. 1, 2A and 2B of Byers, col. 2, lines 61-67 and col. 4, lines 1-25).

7. Claims 3, 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byers et al (US Patent No. 6,650,451) in view of Dewberry et al (US Patent No. 6,507,425) and further in view of Shibuya (US Patent No. 6,509,991).

Regarding claims 3, 11 and 19, Byers as modified by Dewberry teaches all the aspects of the claimed invention except fails to teach amplifying the outgoing signal. However, Shibuya teaches amplifying the outgoing signal (Fig. 3, col. 3, lines 56-64). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the amplifying the outgoing signal as taught by Shibuya in the system of Byers modified by Dewberry. One of ordinary skill in the art

would have been motivated to do this since allowing increasing the power level of the signal to a desired level.

8. Claims 4, 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byers et al (US Patent No. 6,650,451) in view of Dewberry et al (US Patent No. 6,507,425) and further in view of Rutledge (US Patent No. 5,864,625).

Regarding claims 4, 12 and 20, Byers as modified by Dewberry teaches all the aspects of the claimed invention except fails to teach encrypting the composite signal prior to converting it to the outgoing signal. However, Rutledge in US Patent No. 5,864,625 teaches encrypting the composite signal prior to converting it to the outgoing signal (Fig. 1, col. 3, lines 6-67 and col. 4, lines 1-14). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the encrypting the composite signal prior to converting it to the outgoing signal as taught by Rutledge in the system of Byers modified by Dewberry. One of ordinary skill in the art would have been motivated to do this since allowing a secure optical communications link.

#### ***Allowable Subject Matter***

9. Claims 25-46 are allowed (if overcome the 112 rejection).

#### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-50 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

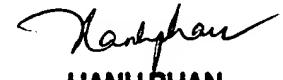
11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

  
HANH PHAN  
PRIMARY EXAMINER